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Livestock Industry Facilities and Environment: Swine Cooling Methods—Drip Cooling

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Swine Cooling Methods - *Drip Cooling*[1]

Livestock Industry Facilities & Environment

Description: Drip cooling systems are used to drip water on the shoulder of sows or boars in a crated situation. This allows evaporation of the water which removes heat from the neck where a large blood supply is present. It is best used for systems where the animal is confined below the drip nozzle. In farrowing crate usage it has been shown to reduce sow respiration rate, increase feed consumption and improve litter weights.

Probable Uses:

- Crated gestating sows
- Crated boars
- Sows in farrowing crates

Advantages:

- Relatively simple
- Low cost
- Relatively trouble-free
- Effectively cools animals without wetting the surrounding area

Disadvantages:

- Adjustment is tricky
- Water lines installed on the ceilings require long drip tubes which may fall into the manure system or may miss the targeted drip area

Design Information

Complete drip systems are available from commercial vendors. Drip lines should be placed approximately 20 inches behind the head gate of crates. Consider installing dripper water lines on top of gestation crates rather than on the ceiling. This will reduce the need for drip tubes that will get pulled off and dropped into the manure pit. The water flow rate of each dripper should be ½ to ¾ gallon per hour. Thermostats should be set to trigger the system at about 82 F. Adjust the thermostat depending on signs of heat stress. Air moving over the animals reduces heat stress further.

Further Information:

For further information see "Heating, Cooling and Tempering Air for Livestock Housing", MWPS-34. This 47 page handbook is available for $6 plus handling from county Extension offices or by calling 1-800-562-3618. Also available is "Drip Cooling of Sows in Farrowing House", Pm-1261. This was written by Dr. Vern Meyer and is a one page ISU Extension fact sheet available free of charge.

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